Remarks/Arguments

This paper is filed in response to the Office Action dated as mailed March 9, 2009, in which the previous Office Action of February 4, 2009 was vacated. Claims 1-25 are pending. Claim 1 is amended with an editorial change.

Claim Rejections – 35 USC § 103

Claims 1-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,578,837 to Blank et al. in view of U.S. Patent No. 6,474,632 to Liou (Liou I), U.S. Patent No. 6,655,670 to Liou (Liou II) in view of Liou I, and International Publication No. WO 03/013793 to American Tool Companies, Inc. in view of Liou I.

The Examiner asserted that the primary references all disclosed a clamping and spreading tool having a stationary jaw, movable jaw, pull rod, gearing spring, centering spring, slide mechanism, and a lock. The Examiner also asserted that "[i]n regard to the force dissipating mechanism this is merely the structure of the invention because the locks, gears, cants, will all perform these recited functions."

Applicants' amended independent claim 1 recites as the final element:

> a force dissipating mechanism for dissipating the clamping or spreading forces stored that allows absorption displacement of the push or pull rod in the opening direction along a predetermined absorption path and blocks displacement of the push or pull rod in the opening direction beyond the predetermined absorption path upon release of the lock.

A predetermined absorption path "x" is shown in FIG. 2 of Applicants' application and is described in Applicants' specification at paragraphs [0052] and [0054]. The path occurs within

the free space 67, and has an end where the actuating arm 19 is stopped by the abutment 69. This predetermined absorption path is a distance that corresponds to the distance the push or pull rod is allowed to travel when the lock is released and before the rod is stopped from further movement.

With further explanation of operation, Applicants' compression spring 29 pushes the driving plate 27 around a projecting stop 25, which is a pivot point. The clamping forces are held by a separate blocking plate 37. The projecting stop 25 is not fixed but pivots around a swivel joint 21, which is a bearing axis, along the predetermined absorption path x when the operation lever 19 pivots in an opposite direction of operating the operation lever 19. The driving plate 27 makes the projecting stop 25 pivot along the predetermined absorption path x as soon as the blocking plate is released. The predetermined absorption path x is limited because the operating lever 19 stops at the abutment 69 of the housing.

None of the cited references discloses a force dissipating mechanism that (1) allows push or pull rod displacement in the open direction along a predetermined absorption path that has a set end point and (2) blocks further displacement of the push or pull rod beyond the predetermined absorption path. Nor do any disclose any mechanism that allows just a small movement of the push or pull rod to release force exerted on the object being clamped, preventing what might be an explosive propulsion of the rod.

Blank et al. in its carry-along slide 5 discloses a mechanism for advancing the rod 3. This does not block the rod from displacement; in the rest position, the carry-along slide 5 rests on stops and the rod can slide freely through it. The detent slide 14 holds the rod in place until the release lever 15 is released. There is no predetermined absorption path, as there is no blocking of motion of the rod when release of the detent slide occurs.

Liou II is directed to a transmission mechanism for a clamping device including two operating handles 1, 2 that each have a pair of push members 3, 4 and 4, 5. The push members are for advancing the scaled rod 13. Liou II discloses no features that make up a force dissipating mechanism; no elements are configured to block opening displacement along a predetermined absorption path upon release of a lock.

WO 03/013793 is directed to increased and variable force and multi-speed clamps, in particular, clamps that have a trigger handle that permits varying of the effective lever arm of the trigger handle depending on the load encountered by a support element. No elements are configured to block opening displacement along a predetermined absorption path upon release of a lock.

Liou I adds nothing with respect to a force dissipating mechanism and a predetermined absorption path.

Applicants' amended claim 1 is nonobvious over the cited references for at least the reason that the references must individually or in combination teach or suggest all of the limitations of the claims to establish a *prima facie* case of obviousness. *See* MPEP § 2143.03. This is not the case. None of the cited references teaches or suggests a force dissipating mechanism that relates to a predetermined absorption path as recited in Applicants' claim 1, either individually or in combination. Accordingly, there is no *prima facie* obviousness, and Applicants' claim 1 is nonobvious over the cited references. Applicants also respectfully disagree with the Examiner's assertion that all of the rest of the elements recited in Applicants' claim 1 are met by the cited references.

Claims 2-25 depend either directly or indirectly from allowable, amended claim 1, and are therefore allowable for the same reasons. In addition, claims 2-25 recite features and

combinations of features not taught or suggested by the cited art and are also therefore allowable for that reason.

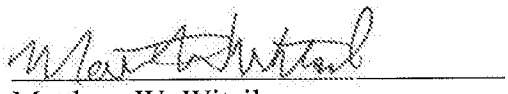
Conclusion

In summary, it is submitted that all claims are allowable and that the application is in a condition for allowance. If the Examiner has any questions about the present Amendment a telephone interview is requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 13-4365.

Respectfully submitted,

Manfred Geier, et al.
(Applicants)

Date: 9 June 2009

By: 

Matthew W. Witsil
Registration No. 47,183
Moore & Van Allen, PLLC
P.O. Box 13706
Research Triangle Park, NC 27709
Telephone: (919) 286-8000
Facsimile: (919) 286-8199